REMARKS

Claims 34 and 35-81 are pending. As discussed with Examiner Hutson on April 28, the language of independent Claim 34 (and dependent Claim 36) has been revised to refer to a polynucleotide that encodes a polypeptide at least 90% identical to SEQ ID NO: 2 or to a functional fragment of such a polypeptide--both of these claims require that the polynucleotide encode a polypeptide having methylene tetrahydrofolate reductase activity. Minor changes have been made to claims 38, 39 and 54. For consistency the dependencies of Claims 70 and 72 have been changed to Claim 63. The dependency of Claim 73 has been corrected. No new matter has been added. Accordingly, favorable consideration of this amendment is now respectfully requested.

The Applicants thank Examiner Hutson for withdrawing the prior art rejection and for discussing possible ways to avoid the remaining description and enablement rejections by revising the claims on April 24, 2005. The wording in independent claim 34 with respect to "fragments" was of concern. Differences between a polypeptide described as being "at least 90% identical to a fragment of SEQ ID NO: 2" and a polypeptide described as "a fragment of a polypeptide that was at least 90% identical to SEQ ID NO: 2" were discussed. Since the specification supports "fragments of SEQ ID NO: 2" as well as sequences which are at least 90% identical to SEQ ID NO: 2, it was suggested that the latter wording might better track the descriptive support in the specification.

Claim Objections

Claims 37-39, 45, 49, 54 and 80 were objected to as depending from rejected Claim 34 or for informality. The Applicants submit that this objection is moot in view of the amendments above.

Rejections--35 U.S.C. 112, first paragraph

Claims 34, 36, 40-44, 46-48, 50-53, 55, 63-79 were rejected under 35 U.S.C. 112, first paragraph, as lacking adequate description. The Applicants submit that these rejections are now moot for the following reasons.

The concern was that while the specification supports fragments of SEQ ID NO: 2 and sequences which encode polypeptides at least 90% identical to SEQ ID NO: 2, that it did not provide adequate descriptive support for a polypeptide that was at least 90% identical to a fragment of SEQ ID NO: 2.

As discussed, to attempt to resolve this issue, Claim 34 has been revised to refer to a polypeptide that is at least 90% identical to SEQ ID NO: 2, which the Applicants believe the Examiner considers adequately described, as well as to fragments of such a polypeptide. Accordingly, the Applicants respectfully request that this rejection be withdrawn.

Rejections--35 U.S.C. 112, first paragraph

Claims 34, 36, 40-44, 46-48, 50-53, 55, 63-79 and 81 were rejected under 35 U.S.C. 112, first paragraph, as lacking adequate enablement. The Applicants submit that this rejection is moot because based on the state of the art in molecular biology as well as on the guidance provided by the specification it would not require undue experimentation to make and use a polynucleotide that encodes a polypeptide having at least 90% identity to SEQ ID NO:2 or a fragment of such a polypeptide that has methylene tetrahydrofolate reductase activity. Once a coding sequence (e.g., SEQ ID NO: 1; specification, page 7, line 7) or the actual or deduced amino acid sequence of an encoded polypeptide (e.g., SEQ ID NO: 2, page 7, line 22) is known, it is routine to make fragments of either the polynucleotide or of the

(specification, page 6, line 8). Moreover, the specification exemplifies the identification of a *metF* gene, its cloning and transformation into a host cell, and the subsequent ability of the transformed cells to produce high amounts of methionine, see e.g., Examples 2-4 on pages 20-26 and Table 1 on page 26 of the specification. Accordingly, the Applicants respectfully submit that this rejection may be withdrawn.

CONCLUSION

In view of the above amendments and remarks, the Applicants respectfully submit that this application is now in condition for allowance. Early notification to that effect is earnestly solicited.

Respectfully submitted,

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